Investigation of technological Upskilling of employees as a strategy and its effectiveness in improving organizational performance with reference to IT companies in Pune.

Introduction

Indian IT industry has been on a declining growth curve ever since the sub-prime crisis of 2009-10. The $150 billion Indian IT services industry is traversing through various challenges in the recent past. Indian IT companies have been facing challenges in terms of adopting to the rapidly changing IT landscape.

Some of the major challenges being faced by the IT companies are as below.

1. Emergence of new Digital technologies like Cloud Computing, Mobility, IoT, Virtualization, Machine learning, Artificial intelligence etc and thereby making legacy software skill sets like C, C++, Java, .net, Unix etc as commoditized skills.
2. Increase in automation making the traditional skill sets like testing and support functions obsolete.
3. Changing global Economic and political environments like the Brexit & curbs on the US Work Visas.
4. Not keeping up pace with the competitive western IT companies which are working on Niche and latest technologies which demand higher revenues for the projects undertaken.
5. Declining margins and increasing costs because of regulations in hiring local workforce by US and other foreign countries, rather than the outsourced and economical workforce of developing countries like India, Philippines and Indonesia.
6. The growing demands of the clients of the IT companies to be more of a partner in their digital transformation journey rather than being a mere IT service providers.

Statement of Research Problem.

This research work analyses the current Indian IT landscape, identifies the pain points it is facing in terms of its growth and also suggest the possible remedial measures or strategies for the problems. The study specifically takes up one of the important strategies (technological up skilling of workforce) and investigates its impact on the long term organizational performance.

The reason for selection of this research area is because of the researcher's familiarity and association with the IT industry for the past 10 years. As a close observant of the transformation happening in the IT sector and his inclination towards coming up with solutions to the problems being faced by the Industry, The researcher had to choose this research area since he has firsthand experience of finding out the problems and analyzing the solutions to ascertain one of the proposed strategies as an approach that will benefit the industry at large. The researcher's IT experience combined with his educational background of being a Marketing professional helps him to look at the holistic picture and analyze minute details related to the industry. Preliminary knowledge and understanding of the Industry challenges, combined with the preliminary studies and literature reviews and lectures & discussions in the internal forums of his organization and discussions with colleagues and friends also lead him to choose this topic of research.

A few strategies or remedial measures being adopted by the IT companies to minimize the impact of the challenges mentioned above are

1. Strategic Investments in start-ups which are in to developing products and offering the cutting edge technology solutions.
2. Upskilling of work force to retain them & mold them to suit the changing demands of the customers.
3. Imparting Soft skills in the workforce and realizing the importance of partnering with the clients for long term mutual benefits.

4. Embracing automation within the organization to become leaner and improve the value delivery chain by decreasing the operational costs of the company.
5. Considering the hurdles being faced in terms of H1B visa's being issued to Indians as a opportunity to increase the footprint in the global markets by hiring the local work force as per the requirements and there by working on higher revenue generating niche skill based projects - for both IT services and also product based.
6. Investing in Research and development to coming up with the solutions for the real world problems being faced by the people at large and not just working for customers.

From amongst the above strategies being adopted by the IT companies in India, this research work emphasizes on one of the important strategies, i.e. up skilling of workforce, as a solution to improving the organizations performance.

Training of the employees and up skilling them in terms of both technical and soft skills not only helps the employees in their overall personality development and increase in work satisfaction but also improves their morale and the chance of employee retention for the organization which there by decreases the cost of hiring new employees. This is going to eventually lead to the overall organizations performance.

Survey or review of literature and development in the relevant subject

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Literature Review

Organizational performance and its growth depend upon the skills and knowledge of the employees which considered as the assets of the firm. The knowledge, development, abilities and skills are the dimensions of the process of training and development. However, the results of training impart major contribution in the better performance therefore, considered at strategic level in the organizations. To understand the training and development the literature review is carried out in three facets one is to understand the organizational performance, second to elaborate the strategic training and developments and its process and the last is training needs of employees and its implementation.

Organizational Performance

The performance of the organization refers to those attitudes' that have been assessed or measured as to their contribution to organizational goals (Cook and Hunsaker, 2001). The behavior or attitude indicated the approach and skills of the management specially line management that helps them to use the resources' successfully and professionally with competency. However this competency is enhanced with the help of training and development.

Strategic Training and Developments

Tichy et al. (1982) studied the three major prospective of the organizational performance and one of them was human resources management. The other two prospective were mission and strategy of the firm and the organizational structure which gave direction to the workers. Further the study concluded that development of the employees is positively related with the performance of the workers as well as organizations. Miles and Stone (1984) argued that the employees rarely participated in the proactive planning process in which they got training by focusing on the conceptualization and designing which were formulated to increase their capabilities. This results leads towards formation of new business strategies. Hussey (1985) suggested that training of the organization should base on the strategy of the corporation. The empirical finding concluded that management training in UK is rarely relevant with the organization's objectives and the employees of the organization relates the training with their promotion or with individual skills. Collinset al. (2003) supported that the development in the employee's skills via training also reduced the employees turn over in the firm.

Training Need in Employees and its Implementation

Leicester (1988) identified three means for designing and aligning the strategy of training and Development. The focus of the study was on the line manager development. The three phases included the employee's performance appraisal, development of the workers and creation of balance between the tasks and training that is further creating a link between the training and its requirement. However, Burney (1991) offered a theory of Resource based view in which the organization can achieve the competitive edge only on the base of its internal resources which included skills of the employees and knowledge etc. The organizations can maintained its performance by implementing the training at strategic level, and if they failed to implement

Strategies their internal capabilities will be exploited (Barney, 2001). Dessler (2006) defined the training as giving new and different skills to the employees for performing their jobs. Armstrong (2009) suggests that" training can refer to the practice of equipping employees with skills, knowledge, and abilities, with the aim of building organizational capabilities and increasing increase organizational performance". There are different approaches to the training which linked the learning in the organization with the strategic T&D like Proactive Approach In which learning activities with the corporate business strategy and its focus is on developing competencies

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Objectives of the research and proposed hypothesis.

Objectives

1. To study the government IT policy and role of NASSCOM (National Association of Software and Services Companies) in facilitating the IT business & trade practices and growth of the IT industry in India.
2. Perceptual analysis of various factors effecting the growth of the IT industry
3. Study of Technological upskilling of workforce across Executive, Middle management and Operational level employees with in IT companies.
4. Analyzing the impact of providing Technical and Soft skills across organization, on the overall organizational performance.
5. Providing possible solutions/strategies to face the challenges in the present IT industry, with specific suggestions on improving the training and Development of employees across the ITfirms.

Hypothesis

The Hypothesis formulated for this research is based on the scope of the study being conducted as part of this research topic. The basic idea of whether imparting technological and soft skills will increase the organizational performance is to be tested. The correlation between these two has to be studies in two parts,

1) Upskilling increasing the employee performance
2) Upskilled employees contributing to organizational performance.

Based on the above two premises the below Hypothesis are being tested.

Hypothesis 1:

H0: Imparting the in-demand technology based software courses and Soft skills does not improve employee's performance
H1: Imparting the in-demand technology based software courses and Soft skills improves employee's performance

Hypothesis 2:

H0: Upskilled Employees do not contribute to the increased organizational performance
H1: Upskilled Employees contribute to the increased organizational performance

Combining the above two Hypothesis, the below Hypothesis is to be tested

Hypothesis 3:

H0: Imparting the in-demand technology based software courses and Soft skills does not contribute to the increased organizational performance
H1: Imparting the in-demand technology based software courses and Soft skills contributes to the increased organizational performance

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Methodology to be used and adopted.

The Scope of the research is going to be limited to the IT companies in Pune city i.e. top 5 IT companies by employee count, which are present only in Pune city of Maharashtra state. The nature of study is going to be diagnostic-descriptive investigation.

There are two parts to the research involved for this topic.

1. Reponses from executive management of IT companies, to analyze the problems faced by the IT companies
2. Responses related to the Upskilling training and development modules by all levels of employees of various IT organizations

Part 1:

Method of research (for CXOs input)

The CXO level associates response will be sought for performing Factor analysis, to understand the various attributes effecting the IT industry now.

A focus group discussion (FGD) would be done to collect the variables from CXO level executives, as a FGD would also give an exhaustive list of variables which reflect industry expert's opinions better.

For factor analysis, the attributes effecting IT industry are to be found, hence, qualitative research, exploratory in nature, would be done to identify the underlying attributes.

Part 2:

Method of research

For further analysis about the trainings across organizations, Quantitative data will be sought from a sample of employees for conclusive evidence in the form of a questionnaire.

Type of research

For the confirmatory research, random survey would be conducted using a questionnaire with questions which would give the data to be used as input to MR techniques in SPSS software

Data collection tool

The data collection tool used for gathering the responses will be a questionnaire

Data type

The data collected and used in the research is secondary data, collected from surveys

Sampling Design

A homogenous respondent's mix, comprising people from all three management levels of multiple companies with in the top 10 IT companies of Pune, would be selected.

The sample of associates chosen for confirmatory research survey would be from the top 10 IT companies in Pune. The sample technique used would be simple random sampling (SRS) which is a probability sampling method.

Research Universe & Sample size

There are approximately 70-75 Small and Big IT companies in Pune. The Top 5 IT companies by employee count themselves account to about 90% of the associates. The top 5 IT companies by their size are, Infosys, TCS, Wipro, Tech Mahindra and Cognizant. They have a total added strength of about 25000. Out of this 25000 associates, the Top Management (CXO level) comprises of about 250 employees. The Middle management is about 5000 employees and operational level associates form the remaining 19750 head count. For the purpose of this research a homogenous sample size of 50 Top level management employees, 100 middle level Management employees and 350 operational level employees would be chosen.

This would constitute a total sample of about 500 employees' i.e 2% of the total population size of 25000 employees.

Processing and Analysis of Data

Statistical techniques like ANNOVA would be used to test the hypothesis.

Importance of the study

This study is going to be relevant to all the IT companies in India but it is based on the sample selected from a specific region (Pune City). Hence the importance of this study is going to be valid at a National level.

The Scope of the research is going to be limited to the Indian IT companies i.e. top 5 IT companies by employee count, which are present only in Pune city of Maharashtra state. The nature of study is going to be diagnostic-descriptive investigation.

Proposed work plan- with a tentative chapter scheme

Chapter 1: Introduction to IT
Chapter 2: Review of literature
Chapter 3: Research Methodology
Chapter 4: Technology upskilling practices in IT industry
Chapter 5: Data presentation, Analysis and Interpretation
Chapter 6: Findings & suggestions for future research

Year wise plan of work and targets to be achieved

	Aug17-Jan18	Feb18-July18	Aug18-Jan19	Feb19-July19	Aug19-Jan20	Feb20-July20
Course Work & Literature review						
Research planning & Questionnaire preparation						
Market research & data collection						
Data presentation, Analysis & Interpretation						
Findings and Suggestions for future research &Summarization						
Dissertation, submission						
Evaluation of Thesis and Viva voce						

Expected outcome.

The research outcome is expected to emphasis and confirm that technological upskilling of associates would enhance the organizational growth.

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4. Critically analyse the challenges being faced by Indian IT sector

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5. What are some problems/challenges the Indian IT industry faces currently?

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